

MOD

Molded Case Circuit Breakers



MOD series molded case circuit breakers are used for switching and protecting low-voltage installations in large residential properties and business as well as industrial buildings. They ensure reliable protection against overload and short circuits and they can be used as a main disconnection switch, too.

Benefits

- ▶ Rated currents range from 40 to 1250 A
- ▶ Three- or four-pole versions
- ▶ High short-circuit breaking capacity (up to 85 kA)
- ▶ Easy adjustable overload and short-circuit release
- ▶ Micro-processor release (e-version)
- ▶ Compact mechanical design
- ▶ They can be installed vertically or horizontally
- ▶ Many additional accessories

Types

- MOD 1 three-pole, four-pole
- MOD 2 three-pole, four-pole
- MOD 3 three-pole, four-pole
- MOD 4 three-pole, four-pole
- MOD 5 three-pole, four-pole
- MOD 6 three-pole, four-pole

Standards

- ▶ IEC 60947-2
- ▶ IEC 60947-5-1

MOD 1 - Three-pole, adjustable type

| Type | Rated Current I_n (A) | Number of Poles | Ordering No. | Weight (kg) | Packaging (pcs) |
|---------------------------------|----------------------------|--------------------|--------------|----------------|--------------------|
| Standard rated short capability | | | | | |
| MOD1 3NL 40A | 40 | 3 | 786.103.960 | 1.2 | 1 |
| MOD1 3NL 50 | 50 | 3 | 786.103.970 | 1.2 | 1 |
| MOD1 3NL 63A | 63 | 3 | 786.103.980 | 1.2 | 1 |
| MOD1 3NM 63A | 63 | 3 | 786.103.780 | 1.2 | 1 |
| MOD1 3NL 80A | 80 | 3 | 786.103.990 | 1.2 | 1 |
| MOD1 3NL 100A | 100 | 3 | 786.104.000 | 1.2 | 1 |
| MOD1 3NM 100A | 100 | 3 | 786.103.797 | 1.2 | 1 |



MOD 2 - Three-pole, adjustable type

| | | | | | |
|---------------------------------|-----|---|-------------|-----|---|
| Standard rated short capability | | | | | |
| MOD2 3NL 125A | 125 | 3 | 786.104.100 | 1.8 | 1 |
| MOD2 3NM 125A | 125 | 3 | 786.103.930 | 1.8 | 1 |
| MOD2 3NL 160A | 160 | 3 | 786.104.200 | 1.8 | 1 |
| MOD2 3NM 160A | 160 | 3 | 786.103.798 | 1.8 | 1 |
| MOD2 3NL 200A | 200 | 3 | 786.104.300 | 1.8 | 1 |
| MOD2 3NM 200A | 200 | 3 | 786.103.790 | 1.8 | 1 |
| MOD2 3NL 250A | 250 | 3 | 786.103.792 | 1.8 | 1 |
| MOD2 3NM 250A | 250 | 3 | 786.103.791 | 1.8 | 1 |



MOD 2 - Four-pole, adjustable type

| | | | | | |
|---------------------------------|-----|---|-------------|-----|---|
| Standard rated short capability | | | | | |
| MOD2 4NM 250A | 250 | 3 | 786.103.613 | 1.8 | 1 |

MOD 3 - Three-pole, adjustable type

| | | | | | |
|-------------------------------|-----|---|-------------|-----|---|
| Middle rated short capability | | | | | |
| MOD3 3NM 250A | 250 | 3 | 786.103.940 | 5.1 | 1 |
| MOD3 3NM 315A | 315 | 3 | 786.104.400 | 5.1 | 1 |
| MOD3 3NM 400A | 400 | 3 | 786.104.500 | 5.1 | 1 |



MOD 3 - Four-pole, adjustable type

| | | | | | |
|-------------------------------|-----|---|-------------|-----|---|
| Middle rated short capability | | | | | |
| MOD3 4NM 315A | 315 | 3 | 786.103.537 | 5.1 | 1 |
| MOD3 4NM 400A | 400 | 3 | 786.103.631 | 5.1 | 1 |

MOD 3 - Three-pole, electronic type

| | | | | | |
|-------------------------------|-----|---|-------------|-----|---|
| Middle rated short capability | | | | | |
| MOD3 3EM 250A | 250 | 3 | 786.104.180 | 5.5 | 1 |
| MOD3 3EM 400A | 400 | 3 | 786.103.799 | 5.5 | 1 |

MOD 4 - Three-pole, adjustable type

| Type | Rated Current I_n (A) | Number of Poles | Ordering No. | Weight (kg) | Packaging (pcs) |
|-------------------------------|----------------------------|--------------------|--------------|----------------|--------------------|
| Middle rated short capability | | | | | |
| MOD4 3NM 500A | 500 | 3 | 786.104.600 | 6.9 | 1 |
| MOD4 3NM 630A | 630 | 3 | 786.104.700 | 6.9 | 1 |

MOD 4 - Four-pole, adjustable type

| | | | | | |
|-------------------------------|-----|---|-------------|-----|---|
| Middle rated short capability | | | | | |
| MOD4 4NM 500A | 500 | 3 | 786.103.536 | 6.9 | 1 |
| MOD4 4NM 630A | 630 | 3 | 786.103.646 | 6.9 | 1 |

MOD 4 - Three-pole, electronic type

| | | | | | |
|-------------------------------|-----|---|-------------|-----|---|
| Middle rated short capability | | | | | |
| MOD4 3EM 630A | 630 | 3 | 786.103.781 | 6.9 | 1 |
| MOD4 3EM 800A | 800 | 3 | 786.104.190 | 6.9 | 1 |

MOD 5 - Three-pole, adjustable type

| | | | | | |
|-------------------------------|-----|---|-------------|-----|---|
| Middle rated short capability | | | | | |
| MOD5 3NM 800A | 800 | 3 | 786.104.800 | 8.0 | 1 |
| High rated short capability | | | | | |
| MOD5 3NH 800A | 800 | 3 | 786.103.810 | 8.0 | 1 |

MOD 5 - Three-pole, electronic type

| | | | | | |
|-------------------------------|------|---|-------------|------|---|
| Middle rated short capability | | | | | |
| MOD5 3EM 1000A | 1000 | 3 | 786.103.782 | 15.8 | 1 |
| MOD5 3EM 1250A | 1250 | 3 | 786.103.783 | 15.8 | 1 |



Technical characteristics for thermal-adjustable type

| Technical data | Symbol | Unit | MOD 1 | MOD 2 | MOD 3 | MOD 4 | MOD 5 | | | | | | |
|--|-----------|----------|----------------------------|---------------------------------|---------------|------------|--------|-------|-----|----|-----|----|-----|
| Frame | | | up to 100 A | up to 250 A | up to 400 A | 500, 630 A | 800 A | | | | | | |
| Standard | | | IEC 60947-2, IEC 60947-5-1 | | | | | | | | | | |
| Approvals | | | KEMA*, CE | | | | | | | | | | |
| Rated current (at 40 °C) | I_n | A | 40, 50, 63, 80, 100 | 125, 160, 200, 250 | 250, 315, 400 | 630 | 800 | | | | | | |
| Number of poles | | | 3 and 4 | | | | | | | | | | |
| Rated operational voltage | U_e | V | 380 / 415 | | | | | | | | | | |
| Rated insulation voltage | U_i | V | 800 | 800 | 800 | 1000 | 1000 | | | | | | |
| Rated impulse withstand voltage | U_{imp} | kV | 8 | | | | | | | | | | |
| Pollution degree | | | III | | | | | | | | | | |
| Rated frequency | f | Hz | 50/60 | | | | | | | | | | |
| Altitude | | m | <2000 | | | | | | | | | | |
| Breaking capacity level * | | | L | M | L | M | M | H | M | H | M | H | |
| Rated ultimate short-circuit breaking capacity | 400 V | I_{cu} | kA | 36 | 50 | 36 | 50 | 85 | 100 | 85 | 100 | 85 | 100 |
| Rated ultimate short-circuit breaking capacity | 400 V | I_{cs} | kA | 25 | 36 | 25 | 36 | 60 | 75 | 60 | 75 | 60 | 75 |
| Temperature range | | °C | -25 ... +55 | | | | | | | | | | |
| Storage temperature range | | °C | -40 ... +70 | | | | | | | | | | |
| Mechanical durability | | op. c. | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 2.500 | | | | | |
| Electrical durability | | op. c. | 5.000 | 5.000 | 4.000 | 4.000 | 500 | | | | | | |
| Instantaneous tripping 0.8-1.0 x I_n | F | | fixed | | | | | | | | | | |
| | N | I_{cs} | kA | adjustable from 0.8 - 1 x I_n | | | | | | | | | |
| Screws | | | M8 | M8 | M10 | M12 | | | | | | | |
| Head | | | M8 | M8 | M10 | M12 | | | | | | | |
| Width of copper connection | | mm | 16 | 22 | 24 | 35 | | | | | | | |

*Selected models only: MOD1 3NM, MOD2 3NM, MOD1 3NL, MOD2 3NL, MOD1 4NM, MOD2 4NM, MOD1 4NL, MOD2 4NL

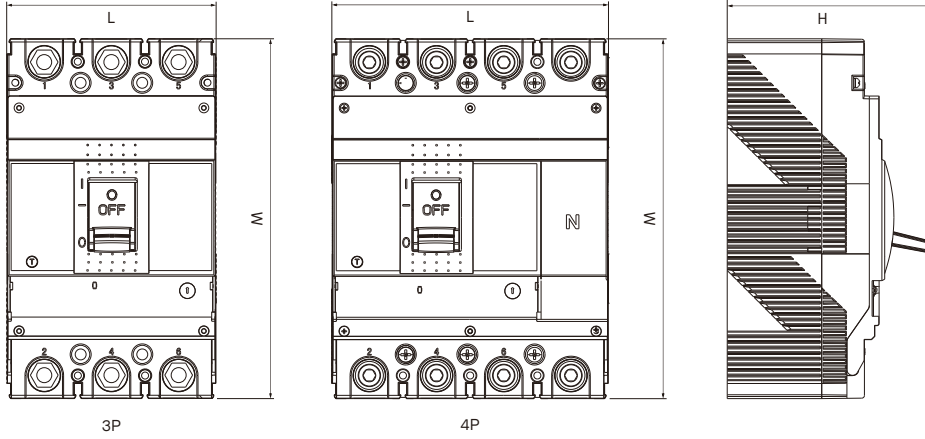
Technical characteristics for electronic type

| Technical data | Symbol | Unit | MOD 3 | MOD 4 | MOD 5 | | | |
|--|-----------|----------|----------------------------|------------|--------------|----|-----|----|
| Frame | | | 250, 400 A | 630, 800 A | 1000, 1250 A | | | |
| Standard | | | IEC 60947-2, IEC 60947-5-1 | | | | | |
| Approvals | | | CE | | | | | |
| Rated current (at 40 °C) | I_n | A | 250, 400 | 630, 800 | 1000, 1250 | | | |
| Number of poles | | | 3 and 4 | | | | | |
| Rated operational voltage | U_e | V | 380 / 415 | | | | | |
| Rated insulation voltage | U_i | V | 1000 | | | | | |
| Rated impulse withstand voltage | U_{imp} | kV | 8 | | | | | |
| Pollution degree | | | III | | | | | |
| Rated frequency | f | Hz | 50 / 60 | | | | | |
| Altitude | | m | < 2000 | | | | | |
| Breaking capacity level * | | | M | H | M | | | |
| Rated ultimate short-circuit breaking capacity | 400 V | I_{cu} | kA | 85 | 100 | 85 | 100 | 70 |
| Rated ultimate short-circuit breaking capacity | 400 V | I_{cs} | kA | 60 | 75 | 60 | 75 | 50 |
| Temperature range | | °C | -25 ... +55 | | | | | |
| Storage temperature range | | °C | -40 ... +70 | | | | | |
| Mechanical durability | | op. c. | 8.500 | 4.000 | 2.500 | | | |
| Electrical durability | | op. c. | 3.000 | 1.000 | 500 | | | |

Dimensions

(mm)

| Type | | MOD 1 | MOD 2 | MOD 3 | MOD 4 | MOD 5 |
|-----------|----|----------------|----------------|-----------------|-----------------|-----------------|
| L x W x H | 3P | 92 x 155 x 92 | 106 x 155 x 99 | 150 x 257 x 148 | 150 x 257 x 148 | 210 x 280 x 155 |
| | 4P | 122 x 155 x 92 | 142 x 165 x 99 | 198 x 257 x 148 | 198 x 257 x 148 | 280 x 280 x 155 |



Accessory installation manuals for 3-pole MCCB



PS11
(Auxiliary contact)



AL11
(Alarm switch)



SHT
(Shunt trip)



QT38
(Under-voltage release)



| Item | Accessories | 125 A 3P | 160 A _w 3P | 250 A 3P | 400 A 3P | 630 A 3P | 800 A 3P |
|-----------------------|-------------|-------------|--------------------------|-------------|-------------|-------------|-------------|
| AL11 | | □□□ | □□□ | □□□ | □□□ | □□□ | □□□ |
| SHT | | ○●○ | ○●○ | ○●○ | ○●○ | ○●○ | ○●○ |
| PS11 | | ■□■ | ■□■ | ■□■ | ■□■ | ■□■ | ■□■ |
| QT38 | | ○□○ | ○□○ | ○□○ | ○□○ | ○□○ | ○□○ |
| AL11 + PS11 | | △□△ | △□△ | △□△ | △□△ | △□△ | △□△ |
| TWO PS11 | | ▲□▲ | ▲□▲ | ▲□▲ | ▲□▲ | ▲□▲ | ▲□▲ |
| SHT, PS11 | | ○●■ | ○●■ | ○●■ | ○●■ | ○●■ | ○●■ |
| SHT, AL11 | | ○□○ | ○□○ | ○□○ | ○□○ | ○□○ | ○□○ |
| SHT, AL11 + PS11 | | ○□△ | ○□△ | ○□△ | ○□△ | ○□△ | ○□△ |
| SHT, TWO PS11 | | ○□▲ | ○□▲ | ○□▲ | ○□▲ | ○□▲ | ○□▲ |
| SHT, QT38 | | ○□○ | - | - | ○□○ | ○□○ | ○□○ |
| QT38, SHT | | ○●○ | ○●○ | ○●○ | ○●○ | ○●○ | ○●○ |
| QT38, PS11 | | ○□■ | ○□■ | ○□■ | ○□■ | ○□■ | ○□■ |
| QT38, AL11 | | ○□○ | ○□○ | ○□○ | ○□○ | ○□○ | ○□○ |
| QT38, AL11 + PS11 | | ○□△ | ○□△ | ○□△ | ○□△ | ○□△ | ○□△ |
| QT38, TWO PS11 | | ○□▲ | ○□▲ | ○□▲ | ○□▲ | ○□▲ | ○□▲ |
| PS11, AL11 | | ■□○ | ■□○ | ■□○ | ■□○ | ■□○ | ■□○ |
| PS11, SHT | | ■□○ | ■□○ | ■□○ | ■□○ | ■□○ | ■□○ |
| PS11, AL11 + PS11 | | ■□△ | ■□△ | ■□△ | ■□△ | ■□△ | ■□△ |
| PS11, TWO PS11 | | ■□▲ | ■□▲ | ■□▲ | ■□▲ | ■□▲ | ■□▲ |
| PS11, QT38 | | ■□○ | - | - | ■□○ | ■□○ | ■□○ |
| AL11, PS11 | | □□■ | □□■ | □□■ | □□■ | □□■ | □□■ |
| AL11, SHT | | □□○ | □□○ | □□○ | □□○ | □□○ | □□○ |
| AL11, AL11 + PS11 | | □□△ | □□△ | □□△ | □□△ | □□△ | □□△ |
| AL11, TWO PS11 | | □□▲ | □□▲ | □□▲ | □□▲ | □□▲ | □□▲ |
| AL11, QT38 | | □□○ | - | - | □□○ | □□○ | □□○ |
| AL11 + PS11, PS11 | | △□■ | △□■ | △□■ | △□■ | △□■ | △□■ |
| AL11 + PS11, AL11 | | △□○ | △□○ | △□○ | △□○ | △□○ | △□○ |
| AL11 + PS11, SHT | | △□○ | △□○ | △□○ | △□○ | △□○ | △□○ |
| AL11 + PS11, TWO PS11 | | △□▲ | △□▲ | △□▲ | △□▲ | △□▲ | △□▲ |
| AL11 + PS11, QT38 | | △□○ | - | - | △□○ | △□○ | △□○ |
| TWO PS11, PS11 | | ▲□■ | ▲□■ | ▲□■ | ▲□■ | ▲□■ | ▲□■ |
| TWO PS11, AL11 | | ▲□○ | ▲□○ | ▲□○ | ▲□○ | ▲□○ | ▲□○ |
| TWO PS11, SHT | | ▲□○ | ▲□○ | ▲□○ | ▲□○ | ▲□○ | ▲□○ |
| TWO PS11, AL11 + PS11 | | ▲□△ | ▲□△ | ▲□△ | ▲□△ | ▲□△ | ▲□△ |
| TWO PS11, QT38 | | ▲□○ | - | - | ▲□○ | ▲□○ | ▲□○ |

Valid for all 3-pole versions of Iskra MOD



Accessory installation manuals for 4-pole MCCB



PS11
(Auxiliary contact)



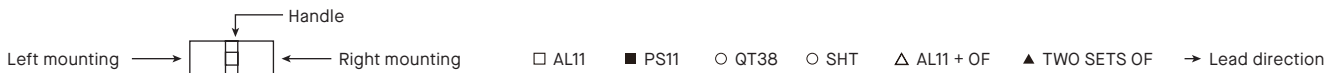
AL11
(Alarm switch)



SHT
(Shunt trip)



QT38
(Under-voltage release)



| Item | Accessories | 125 A 4P | 160 A _w 4P | 250 A 4P | 400 A 4P | 630 A 4P | 800 A 4P |
|-----------------------|-------------|-------------|--------------------------|-------------|-------------|-------------|-------------|
| AL11 | | □□□□ | □□□□ | □□□□ | □□□□ | □□□□ | □□□□ |
| SHT | | ○●○● | ○●○● | ○●○● | ○●○● | ○●○● | ○●○● |
| PS11 | | ■□■□ | ■□■□ | ■□■□ | ■□■□ | ■□■□ | ■□■□ |
| QT38 | | ○□○□ | ○□○□ | ○□○□ | ○□○□ | ○□○□ | ○□○□ |
| AL11 + PS11 | | △□△□ | △□△□ | △□△□ | △□△□ | △□△□ | △□△□ |
| TWO PS11 | | ▲□▲□ | ▲□▲□ | ▲□▲□ | ▲□▲□ | ▲□▲□ | ▲□▲□ |
| SHT, PS11 | | ○●■□ | ○●■□ | ○●■□ | ○●■□ | ○●■□ | ○●■□ |
| SHT, AL11 | | ○●□□ | ○●□□ | ○●□□ | ○●□□ | ○●□□ | ○●□□ |
| SHT, AL11 + PS11 | | ○●△□ | ○●△□ | ○●△□ | ○●△□ | ○●△□ | ○●△□ |
| SHT, TWO PS11 | | ○●▲□ | ○●▲□ | ○●▲□ | ○●▲□ | ○●▲□ | ○●▲□ |
| SHT, QT38 | | ○●○□ | - | - | ○●○□ | ○●○□ | ○●○□ |
| QT38, SHT | | ○□●○ | ○□●○ | ○□●○ | ○□●○ | ○□●○ | ○□●○ |
| QT38, PS11 | | ○□■○ | ○□■○ | ○□■○ | ○□■○ | ○□■○ | ○□■○ |
| QT38, AL11 | | ○□□○ | ○□□○ | ○□□○ | ○□□○ | ○□□○ | ○□□○ |
| QT38, AL11 + PS11 | | ○□△○ | ○□△○ | ○□△○ | ○□△○ | ○□△○ | ○□△○ |
| QT38, TWO PS11 | | ○□▲○ | ○□▲○ | ○□▲○ | ○□▲○ | ○□▲○ | ○□▲○ |
| PS11, AL11 | | ■□□□ | ■□□□ | ■□□□ | ■□□□ | ■□□□ | ■□□□ |
| PS11, SHT | | ■□○□ | ■□○□ | ■□○□ | ■□○□ | ■□○□ | ■□○□ |
| PS11, AL11 + PS11 | | ■□△□ | ■□△□ | ■□△□ | ■□△□ | ■□△□ | ■□△□ |
| PS11, TWO PS11 | | ■□▲□ | ■□▲□ | ■□▲□ | ■□▲□ | ■□▲□ | ■□▲□ |
| PS11, QT38 | | ■□○□ | - | - | ■□○□ | ■□○□ | ■□○□ |
| AL11, PS11 | | □□■□ | □□■□ | □□■□ | □□■□ | □□■□ | □□■□ |
| AL11, SHT | | □□○□ | □□○□ | □□○□ | □□○□ | □□○□ | □□○□ |
| AL11, AL11 + PS11 | | □□△□ | □□△□ | □□△□ | □□△□ | □□△□ | □□△□ |
| AL11, TWO PS11 | | □□▲□ | □□▲□ | □□▲□ | □□▲□ | □□▲□ | □□▲□ |
| AL11, QT38 | | □□○□ | □□○□ | □□○□ | □□○□ | □□○□ | □□○□ |
| AL11 + PS11, PS11 | | △□■□ | △□■□ | △□■□ | △□■□ | △□■□ | △□■□ |
| AL11 + PS11, AL11 | | △□□□ | △□□□ | △□□□ | △□□□ | △□□□ | △□□□ |
| AL11 + PS11, SHT | | △□○□ | △□○□ | △□○□ | △□○□ | △□○□ | △□○□ |
| AL11 + PS11, TWO PS11 | | △□▲□ | △□▲□ | △□▲□ | △□▲□ | △□▲□ | △□▲□ |
| AL11 + PS11, QT38 | | △□○□ | - | - | △□○□ | △□○□ | △□○□ |
| TWO PS11, PS11 | | ▲□■□ | ▲□■□ | ▲□■□ | ▲□■□ | ▲□■□ | ▲□■□ |
| TWO PS11, AL11 | | ▲□□□ | ▲□□□ | ▲□□□ | ▲□□□ | ▲□□□ | ▲□□□ |
| TWO PS11, SHT | | ▲□○□ | ▲□○□ | ▲□○□ | ▲□○□ | ▲□○□ | ▲□○□ |
| TWO PS11, AL11 + PS11 | | ▲□△□ | ▲□△□ | ▲□△□ | ▲□△□ | ▲□△□ | ▲□△□ |
| TWO PS11, QT38 | | ▲□○□ | ▲□○□ | ▲□○□ | ▲□○□ | ▲□○□ | ▲□○□ |

Valid for all 4-pole versions of Iskra MOD



Note:
R2 can be installed with PS11, TWO PS11

Molded Case Circuit Breakers - Accessories

Motor operated mechanism

| Type | Rated Voltage U_n (V) | Ordering No. | Weight (kg) | Packaging (pcs) |
|--------------------|----------------------------|--------------|----------------|--------------------|
| MOD1 3N ACM 230VAC | 230 | 786.103.789 | 1.2 | 1 |
| MOD2 3N ACM 230VAC | 230 | 786.103.795 | 1.2 | 1 |
| MOD3 3N ACM 230VAC | 230 | 786.103.793 | 3.4 | 1 |
| MOD4 3N ACM 230VAC | 230 | 786.1037.96 | 3.4 | 1 |
| MOD5 3N ACM 230VAC | 230 | 786.103.794 | 3.8 | 1 |



Extended rotary handle

| Type | Ordering No. | Weight (kg) | Packaging (pcs) |
|-------------|--------------|----------------|--------------------|
| MOD1 3N ERH | 786.103.784 | 0.3 | 1 |
| MOD2 3N ERH | 786.103.785 | 0.3 | 1 |
| MOD3 3N ERH | 786.103.786 | 0.3 | 1 |
| MOD4 3N ERH | 786.103.787 | 0.3 | 1 |
| MOD5 3N ERH | 786.103.788 | 0.3 | 1 |



Shunt trip

| Type | Rated Voltage U_n (V) | Ordering No. | Weight (kg) | Packaging (pcs) |
|---------------|----------------------------|--------------|----------------|--------------------|
| MOD1 A230 SHT | 230 | 786.104.900 | 0.032 | 1 |
| MOD2 A230 SHT | 230 | 786.104.110 | 0.108 | 1 |
| MOD3 A230 SHT | 230 | 786.104.120 | 0.175 | 1 |
| MOD4 A230 SHT | 230 | 786.103.900 | 0.250 | 1 |
| MOD5 A230 SHT | 230 | 786.103.910 | 0.250 | 1 |



Under-voltage release

| Type | Rated Voltage U_n (V) | Ordering No. | Weight (kg) | Packaging (pcs) |
|-------------------|----------------------------|--------------|----------------|--------------------|
| MOD1 U230VAC QT38 | 230 | 786.104.130 | 0.075 | 1 |
| MOD2 U230VAC QT38 | 230 | 786.104.140 | 0.172 | 1 |
| MOD3 U230VAC QT38 | 230 | 786.104.150 | 0.250 | 1 |
| MOD4 U230VAC QT38 | 230 | 786.103.840 | 0.250 | 1 |
| MOD5 U230VAC QT38 | 230 | 786.103.850 | 0.250 | 1 |



Alarm switch

| Type | Ordering No. | Weight (kg) | Packaging (pcs) |
|-----------|--------------|----------------|--------------------|
| MOD1 AL11 | 786.103.820 | 0.06 | 1 |
| MOD2 AL11 | 786.103.860 | 0.06 | 1 |
| MOD3 AL11 | 786.103.870 | 0.06 | 1 |
| MOD4 AL11 | 786.103.880 | 0.06 | 1 |
| MOD5 AL11 | 786.103.890 | 0.06 | 1 |



Auxiliary contact

| Type | Ordering No. | Weight (kg) | Packaging (pcs) |
|-----------|--------------|----------------|--------------------|
| MOD1 PS11 | 786.104.160 | 0.06 | 1 |
| MOD2 PS11 | 786.103.950 | 0.06 | 1 |
| MOD3 PS11 | 786.104.170 | 0.12 | 1 |
| MOD4 PS11 | 786.103.920 | 0.12 | 1 |
| MOD5 PS11 | 786.103.830 | 0.12 | 1 |



4P Straight bar

| Type | Ordering No. | Weight (kg) |
|-----------|--------------|----------------|
| 4P 160BAR | 786.103.881 | 0.102 |
| 4P 250BAR | 786.103.882 | 0.203 |
| 4P 400BAR | 786.103.883 | 0.370 |
| 4P 630BAR | 786.103.884 | 0.491 |
| 4P 800BAR | 786.103.885 | 0.491 |



ACM Motor operated mechanism

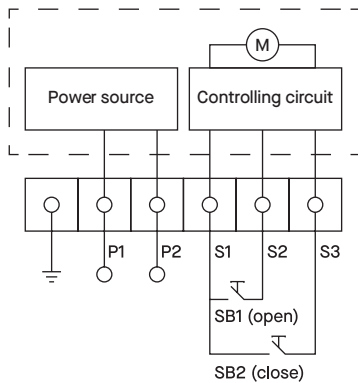
- ▶ Remote operation of MCCBs
 - ▶ Motor mounts directly on MCCB with screws (included) without removal of midcover
 - ▶ Manual operation possible
 - ▶ Clear ON/OFF/TRIP indication
 - ▶ Trip function
- ▶ Rated voltages: AC: 230 V, 400 V
DC: 24 V, 100 V, 220 V



Technical details

| Type | | MOD 1 | MOD 2 | MOD 3 | MOD 4 | MOD 5 |
|-------------------------------|-------|---------------|-------|-------|-------|-------|
| Rated operational voltage | | 220 - 240 VAC | | | | |
| Operation current | | 0.17 | 0.23 | 0.33 | 0.47 | 0.44 |
| Starting current - Peak value | A | 1.05 | 1.5 | 2.09 | 2.15 | 2.32 |
| Operation method | | direct drive | | | | |
| Operation time (s) | ON | 0.31 | 0.36 | 0.63 | 0.56 | 0.62 |
| | OFF | 0.27 | 0.25 | 0.51 | 0.45 | 0.51 |
| | Reset | 0.27 | 0.25 | 0.51 | 0.45 | 0.51 |

Wiring diagram



Instructions

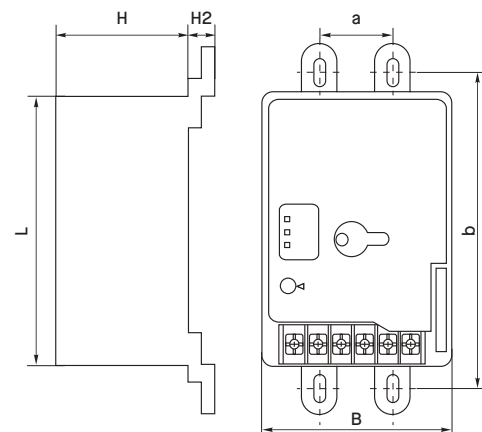
P1-P2: DC IN;
SB1,SB2: operating button (equipped by user)

Notes

In the dotted box is the circuit breaker inner wiring diagram.

Dimensions

| Type | Shape size | | | Installation size | | |
|----------|------------|-----|-----|-------------------|----|-----|
| | L | B | H | H1 | a | b |
| MOD1-100 | 116 | 90 | 77 | 12.5 | 30 | 129 |
| MOD2-250 | 116 | 90 | 77 | 15 | 35 | 126 |
| MOD3-400 | 176 | 130 | 115 | 27 | 44 | 215 |
| MOD4-630 | 176 | 130 | 115 | 31 | 70 | 243 |
| MOD5-800 | 176 | 130 | 115 | 31 | 70 | 243 |



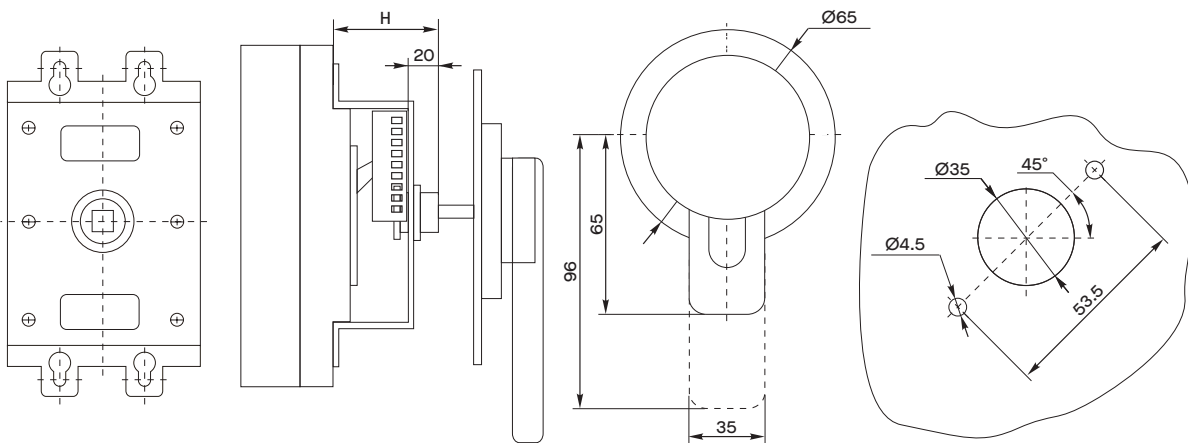
ERH Extended rotary handle

- ▶ Rotary handle mounts directly on MCCB with screws (included) without removal of midcover
- ▶ Clear ON/OFF/TRIP indication
- ▶ Direct access to push to trip button with rotary handle mounted



Dimensions

| Type | MOD1-100 | MOD2-250 | MOD3-400 | MOD4-630 | MOD5-800 |
|--------------------------|----------|----------|----------|----------|----------|
| Installation size H (mm) | 3P | 49 | 55 | 74 | 66 |

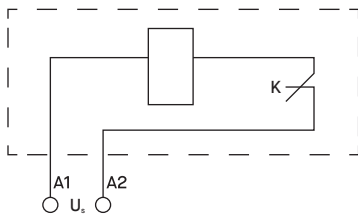


SHT Shunt trip

- ▶ Rated supply voltages U_s : AC: 230 V, 400 V
DC: 24 V, 100 V, 220 V
- ▶ Operation voltages: 0.7 - 1.1 U_s



Wiring diagram



Notes

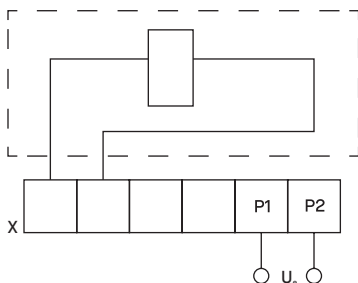
K-the microswitch in series with coil in the shunt release is the normally closed contact, when circuit breaker opening, the contact disconnects automatically, switch on when closing; in the dotted box is the circuit breaker inner wiring diagram.

QT38 Under-voltage release

- ▶ Rated supply voltages U_s : AC: 230 V, 400 V
- ▶ Operation voltages:
When the voltage is 35% - 70% of rated operational voltage, make the circuit breaker tripped stably; When 85% - 110%, guarantee the circuit breaker switched on, when lower than 35% should prevent switch on.



Wiring diagram



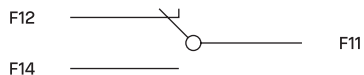
Notes

X-terminal blocks, in the dotted box is the circuit breaker inner wiring diagram.

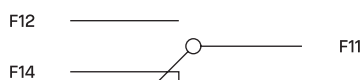
PS11 Auxiliary contact

- ▶ Conventional thermal current I_{th} : 3 A / 230 V
- ▶ Rated operational current I_e : $I_e \leq 225$ A: 0.26 A
 $I_e \geq 400$ A: 0.3 A

Wiring diagram



The state of circuit breaker under "OFF" position



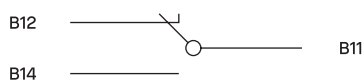
The state of circuit breaker under "ON" position



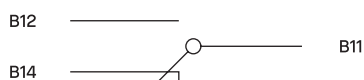
AL11 Alarm switch

- ▶ Conventional thermal current I_{th} : 3 A / 230 V
- ▶ Rated operational current I_e : $I_e \leq 225$ A: 0.26 A
 $I_e \geq 400$ A: 0.3 A

Wiring diagram



The state of circuit breaker under "OFF" "ON" position



The state of circuit breaker under trip free position (alarm)

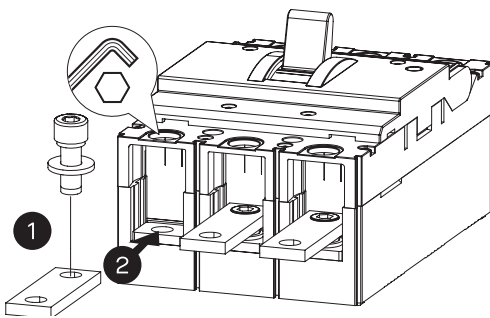


4P Straight bar

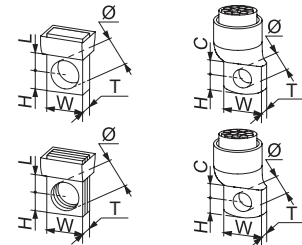
| Type | Ordering No. | Weight (kg) |
|-----------|--------------|-------------|
| 4P 160BAR | 786.103.881 | 0.102 |
| 4P 250BAR | 786.103.882 | 0.203 |
| 4P 400BAR | 786.103.883 | 0.370 |
| 4P 630BAR | 786.103.884 | 0.491 |
| 4P 800BAR | 786.103.885 | 0.491 |



Mounting



| | Wmax (mm) | T (mm) | Lx (mm) | Cmin (mm) | Ø (mm) | H (mm) | Screw (mm) | Torque (Nm) |
|-----|-----------|--------|---------|-----------|--------|--------|------------|-------------|
| 100 | 16 | 4.5 | 9.5 | / | 8.1 | 7 | 6 | 6 |
| 160 | 16 | 4.5 | 10.5 | / | 8.1 | 7 | 6 | 6 |
| 250 | 20 | 5 | 10.5 | / | 9 | 8.75 | 6 | 6 |
| 400 | 28 | 8.5 | 20 | / | 12.5 | 17 | 10 | 10 |
| 630 | 28 | 10.5 | 20 | / | 12.5 | 17 | 10 | 10 |



Dimensions

(mm)

| | 100 | 160 | 250 | 400 | 630 |
|----|-----|------|-----|------|------|
| D1 | 41 | 50 | 60 | 70 | 70 |
| D2 | 15 | 15 | 20 | 28 | 28 |
| D3 | 7.3 | 8 | 9 | 11 | 11 |
| D4 | 26 | 32.5 | 42 | 43 | 43 |
| D5 | 8.5 | 8.5 | 9 | 10.8 | 10.8 |
| D6 | 8.5 | 8.5 | 9 | 14.5 | 14.5 |
| D7 | 4 | 4 | 5 | 6 | 8 |

